Wind loads on post-panamax container ship

An investigation of the influence of the container configuration on the deck of a 9000+ TEU container ship on wind forces has been carried out through a series of wind tunnel tests with a 1:450 scale model. An analysis of earlier studies was used to select a series of appropriate loading conditions for the tests. The wind tunnel tests were carried out in the naturally existing boundary layer of the wind tunnel. The longitudinal and transverse forces and the yaw moment were measured and the measurements were corrected for the effects of boundary layer and blockage in the wind tunnel. The results are presented as two different types of non-dimensional coefficients. It was apparent, as expected, that the measured forces and moment depend on the container configuration on deck. The test results may provide a general idea of how the magnitude of the wind forces is affected by a given container configuration.